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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/815,126

03/31/2004

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EXAMINER

KAWSAR, ABDULLAH AL

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2195

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/815,126	<b>Applicant(s)</b> JOSHI ET AL.	
	<b>Examiner</b> ABDULLAH AL KAWSAR	<b>Art Unit</b> 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/31/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-25 are pending.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 16-20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As per claim 16, the claimed system is software per se, as they are not tangibly embodied on any sort of physical medium or hardware. The claims recite "determining module", "enabling module", "restarting module" and "communication module", but these limitations are described as being software in the specification. Applicant is suggested to amend the claim including "a memory for storing" and "processor for executing" instructions to perform the steps of the system.

#### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 16, "a communication module" is not disclosed in the specification to support the claimed communication module.

#### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Currently amended independent claim 16 recites "a communications module" does not appear to be described in the specification in such a way as to reasonably convey to one of ordinary skill in the art that the inventions, at the time the application was filed, had possession of the claimed invention.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 11, 12, 16, 17, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang(Huang) US Patent No. 6212562, in view of Chao et al.(Chao) US Patent No. 6393485.

9. As per claim 1, Huang teaches the invention substantially as claimed including a method comprising:

determining whether a resource in a first cluster can be allocated to provide a quantity of the resource to an application ( abstract, lines 3-7); and

if the resource in the first cluster cannot be allocated to provide the quantity of the resource to the application, determining whether the first cluster can be reconfigured to provide the quantity of the resources to the application (col 2, lines 52-65);

if the first cluster can be reconfigured, enabling the first cluster to provide the quantity of the resource to the application by reconfiguring the first cluster (abstract, lines 7-11); and

Huang does not specifically disclose if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application.

However, Chao teaches if the first cluster cannot be reconfigured, restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application (col 3, lines 23-27; col 5, lines 40-45; col 7, lines 34-43).

10. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Chao into the method of Huang to restarting the application in a second cluster having a sufficient amount of the resource to provide the quantity of the resource to the application. The modification would have been obvious because one of the ordinary skills of the art would want to be able to utilize the available resource in a multi-cluster based system between different clusters, nodes and servers to prevent system failure.

11. As per claim 2, Chao teaches selecting the application to be allocated the quantity of the resource from a plurality of applications in accordance with a business priority for the application (col 12, lines 35-38).

12. As per claims 11, 16 and 21, they have similar limitations as claim 1 above. Therefore, they are rejected under the same rational as of claim 1 above.

13. As per claims 12, 17 and 22, they have similar limitations as claim 2 above. Therefore, they are rejected under the same rational as of claim 2 above.

14. Claims 3, 9, 10, 13, 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang(Huang) US Patent No. 6212562, in view of Chao et al.(Chao) US Patent No. 6393485, as applied to claims 1, 11, 16 and 21 above, and further in view of Trossman et al.(Trossman) US Patent No. 7308687.

15. As per claim 3, Huang and Chao do not specifically disclose adding a second quantity of the resource to the first cluster.

However, Trossman teaches adding a second quantity of the resource to the first cluster ( col 11, 53-57).

16. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Fong into the combined method of Chao and Huang to

adding a second quantity of the resource to the first cluster. The modification would have been obvious because one of the ordinary skills of the art would want to be able to add or remove resources to the cluster according to the application necessity to be able to have a stable system execution.

17. As per claim 9, Trossman teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to identifying a problem with performance of the application (col 8, lines 12-23).

18. As per claim 10, Trossman teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to determining that the application is not in conformance with a policy (col 3, lines 35-45, lines 61-67).

19. As per claims 13, 18 and 23, they have similar limitations as claim 3 above. Therefore, they are rejected under the same rational as of claim 3 above.

20. Claims 4, 14, 19 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang(Huang) US Patent No. 6212562, in view of Chao et al.(Chao) US Patent No. 6393485, as applied to claims 1, 11, 16 and 21 above, and further in view of Fong et al.(Fong) US Patent No. 6366945.

21. As per claim 4, Huang and Chao do not specifically disclose partitioning the resource within the first cluster.

However, Fong teaches partitioning the resource within the first cluster (col 1, lines 6-12; lines 38-45).

22. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Fong into the combined method of Chao and Huang to partitioning the resource within the first cluster. The modification would have been obvious because one of the ordinary skills of the art would want to be able to modify the available resources to illuminate the problematic resources and isolate them from rest of the application for repair and have the system running without interruption.

23. As per claims 14, 19 and 24, they have similar limitations as claim 4 above. Therefore, they are rejected under the same rational as of claim 4 above.

24. Claims 5-8, 15, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang(Huang) US Patent No. 6212562, in view of Chao et al.(Chao) US Patent No. 6393485 as applied to claim 1, 11, 16 and 21 above, and further in view of Short et al(Short) US Patent No. 6178529.

25. As per claim 5, Huang and Chao do not specifically disclose monitoring performance of a plurality of applications running in the first cluster; and if performance of one application of the



plurality of applications fails to satisfy a criterion, requesting to allocate a second quantity of the resource for the one application to enable the performance of the one application to satisfy the criterion.

However Short teaches monitoring performance of a plurality of applications running in the first cluster (col 2, lines 1-5); and

if performance of one application of the plurality of applications fails to satisfy a criterion, requesting to allocate a second quantity of the resource for the one application to enable the performance of the one application to satisfy the criterion(col 1, lines 31-34).

26. It would have been obvious to a person of ordinary skill in art at the time of invention was made to incorporate the teaching of Short into the combined method of Chao and Huang to request to allocate for a second quantity of resources if the first quantity fails to satisfy the criteria. The modification would have been obvious because one of the ordinary skills of the art would want to be able to allocate additional resources to the application for having a successful execution according to the specified criteria or policy.

27. As per claim 6, Short teaches the first cluster is remote from the second cluster (col 1, lines 62-65; col 2, lines 51-54).

28. As per claim 7, Short teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to failure of the application ( col 7, lines 32-35).

29. As per claim 8, Short teaches the determining whether the resource in the first cluster can be allocated to provide the quantity of the resource to the application is performed in response to starting the application (col 8, lines 3-6; lines 26-31).

30. As per claims 15, 20 and 25, they have similar limitations as claim 5 above. Therefore, they are rejected under the same rational as of claim 5 above.

#### ***Response to Arguments***

31. Applicant's arguments with respect to claim(s) have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

32. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

33. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH AL KAWSAR whose telephone number is (571)270-3169. The examiner can normally be reached on 7:30am to 5:00pm, EST.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng Ai T. An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195